

6001 Chemical Abstracts 106(1987)15 June, No.24, Columbus, OH, US

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106: 200705c Corrosion-resistant ceramics. Yamamoto, Hiroichi; Oguro, Takashi; Tsunoda, Hideo; Motomura, Hikari (Mitsubishi Heavy Industries, Ltd.) Jpn. Kokai Tokkyo Koho JP 62 52,192 [87 52,192] (Cl. C04B41/87), 06 Mar 1987, Appl. 85/189,784, 30 Aug 1985; 4 pp. Aluminosilicate- or zircon-based oxide films are formed on the surface of Si-contg. nonoxide ceramics TO improve their corrosion resistance. Thus, a Si<sub>3</sub>N<sub>4</sub> ceramic was covered with Al<sub>2</sub>O<sub>3</sub> powder (diam. 0.6  $\mu$ ), and heated at 1200° for 5 h to form a surface layer consisting of 3Al<sub>2</sub>O<sub>3</sub>.2SiO<sub>2</sub>. When its corrosion resistance was tested with synthetic ash at 800°, the corrosion loss was 0.75, vs. 2.7 mg/mm² for an untreated sample.